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TESSD Informal Working Group Meeting

Role of International Cooperation and Technical Assistance in unblocking circularity in the ICT/Electronics sector: examples from UNIDO's national, regional and global programmes

U. Müge Dolun
UNIDO Circular Resource Efficiency Unit



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UNIDOs technical assistance activities related to EEE - from e-waste management to green product design and circularity



**National and
Regional projects
under Global
Environmental
Facility (POPs) and
Montreal Protocol**

**Examples: GEF projects
in Philippines, Latin
America on WEEE & MP
refrigeration and cooling
sector projects around the
globe**



**Promoting CE
business models and
local/regional
capacities for
secondary EEE
market development**

**Example: Switch2CE in
Egypt**



**Global Electronics
Management
Programme**

**Example: GEF GEM with
16 countries
participating**



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Advancing safe and inclusive E-waste Management- Case of Philippines



Collection and recycling

107,950 cathode ray tube (CRT) units collected and delivered to certified e-waste facilities (surpassing the 50,000-unit target).

145.4 tons of recyclable materials recovered from dismantled equipment.



Hazardous waste management

1,103 kg of polybrominated diphenyl ethers (PBDEs) safely removed from **80 tons of plastic casings**, preventing contamination in recycling streams.

948.8 tons of lead-containing glass securely disposed of through **encapsulation**, exceeding the 225-ton target.



Institutional and policy achievements

Partnerships established between private sector actors and local government units (LGUs).

E-waste management ordinance adopted by one participating LGU, setting a local regulatory precedent.

Three material recovery facilities (MRFs) upgraded into fully operational **e-waste processing centres**.



Knowledge management and inclusion

E-waste facilities hosted learning missions, sharing practical insights and good practices.

Women's leadership in e-waste management featured as a success story in **UNIDO** and **GEF** publications.



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SWITCH to Circular Economy at a glance:

Donors:



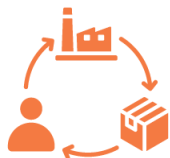
Co-funded by
the European Union



Ministry for Foreign
Affairs of Finland

Aim:

A just transition to an inclusive, climate neutral and circular economy



Value chains

Textile & Garments
Plastic packaging
ICT & Electronics



Duration

2020-2027



Total budget

€20,870,000



Implementing
organization
UNIDO



In collaboration with:

Chatham House
Circle Economy
European Investment
Bank



Pilots in target value chains and countries

Morocco



Plastic packaging

Organize an efficient and scalable bottle-to-bottle collection and recycling scheme and assess the economic and business case on integration of rPET into preforms.

Pilot project with:



Egypt



ICT & Electronics

Establishing a viable business model for high-quality standard secondary market of mobile devices and networks/IT equipment in Egypt. Pilot project with:



NOKIA



Bangladesh



Textile & Garments

Supporting EU MNCs - led pilot projects to demonstrate how their suppliers can be empowered to implement circular economy practices. Two pilot projects with:

H&M Group | BESTSELLER



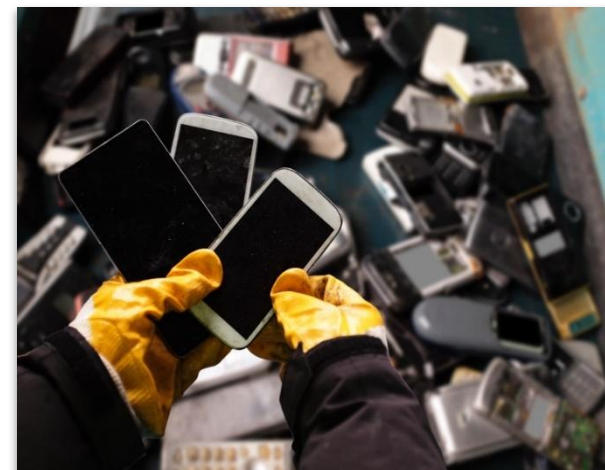
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ICT & Electronics: One Circle pilot in Egypt

Pilot objective: Develop the secondary market for electronics in Egypt, with a wider regional ambition, through:

- Promoting Circular Economy practices by engaging citizens and advocating behaviour change towards recycling and circularity
- Local infrastructure development through refurbishment centres to serve the local market, with ambitions to become an African hub for refurbishing second-hand electronics.
 - Refurbishment centre for mobile devices - Cordon Group (France)
 - Refurbishment centre for telecom equipment - Nokia (Finland)
- Capacity Development: Local technicians recruited and trained, vocational certifying training programs, new practices for circular electronics, including with the informal sector



Collection of used smartphones
Photo: ORANGE





GEM PROGRAM

Objective: To significantly **reduce** the **generation of electronic waste** and **increase circularity** and **resource recovery** in the electronics sector of developing countries, through the creation of an enabling environment, including access to finance, technology and policy and legislative change that fosters responsible electronics management.

What's in scope? ICT equipment



- Mobile phones, smartphones and their waste
- Tablet and their waste
- Laptop computers and their waste
- Desktop computers and their waste
- End of life CRT monitors
- End of life CCFL – LCD monitors
- Computer cables

Out of scope

Other equipment, like:

- Car batteries
- EV panels
- Printers
- Copy machines
- Scanners
- Refrigerating units (AC) etc.



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Global Electronics Management GEM

Donor



Lead agency



In partnership with



Participating countries



Botswana



Colombia



Cambodia



Djibouti



Eswatini



Ethiopia



Kazakhstan



Lesotho



Mozambique



Namibia



Peru



Philippines



Somalia



South Africa



Türkiye



Vietnam





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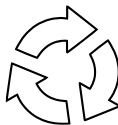


GEM PROGRAM

The GEM program goes beyond e-waste management—it tackles the full electronics lifecycle, with integrated upstream, midstream, and downstream solution considerations.



extending the lifespan of ICT equipment through **design, marketing and repair**



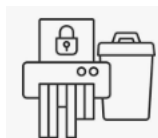
promote the **reuse** of ICT equipment and their functional components



promote the environmentally safe **recycling** of ICT equipment



improve the **collection and management** of their waste



ensure the **environmentally safe disposal** of mercury and POP containing waste